

UNITED STATES DISTRICT COURT
EASTERN DISTRICT OF MICHIGAN
SOUTHERN DIVISION

S.C., a Protected Individual, by his
Conservator, THOMIKA WOODLAND,

Plaintiff,

Case No. 06-15222

v.

HON. MARIANNE O. BATTANI

THE UNITED STATES OF AMERICA,

Defendant.

/

OPINION AND ORDER SETTING FORTH THE COURT'S FINDINGS OF FACT AND CONCLUSIONS OF LAW

This matter came before the Court for a bench trial beginning on October 8, 2009, and concluding on October 19, 2009. The Court has considered the evidence submitted and the legal arguments of the parties and hereby enters the following Findings of Fact and Conclusions of Law pursuant to Federal Rule of Civil Procedure 52(a).

I. BACKGROUND

This case arises out of the Caesarean delivery of S.C. at Harper Hutzel Hospital on January 22, 2004. During her pregnancy with S.C., Thomika Woodland received prenatal care at the Detroit Community Health Connection's (DCHC) Bruce Douglas Center. Ms. Woodland's prenatal course was, for the most part, uneventful; however, two ultrasounds during the pregnancy revealed polyhydramnios, which is an excess of

amniotic fluid. According to the doctors' testimony, this did not cause any ongoing concern for the health of either Ms. Woodland or S.C.

On January 22, 2004, Ms. Woodland arrived at Hutzel Hospital for a scheduled Caesarean section in good health. Dr. M. Jeannette Espy, an employee of the DCHC, performed the C-section. She is board certified in obstetrics and gynecology and has delivered hundreds of babies over 20 years of practice. Dr. Espy does not remember this particular procedure, but through her review of the records she was able to provide testimony concerning the delivery.

Dr. Espy testified that during the procedure she encountered dense scar tissue, which was likely a result of Ms. Woodland's two prior C-sections. This caused her to have difficulty gaining access to the baby. Consequently, she attached a vacuum extractor to the baby's head to facilitate delivery. She explained that she would have used the vacuum to stabilize the head while her assistant applied fundal pressure on the mother's abdomen to facilitate extraction of the baby from the uterus. According to the hospital records, the uterine incision was made at 8:52 p.m., and S.C. was delivered two minutes later, at 8:54 p.m. The operation was completed at 9:35 p.m.

S.C.'s treating physicians began noticing severe developmental delays in S.C. approximately three months following his birth. S.C. subsequently began suffering from myoclonic seizures. Plaintiff claims that these difficulties were the result of an injury S.C. suffered during delivery due to Dr. Espy's improper use of the vacuum extractor. The primary issues being contested in this case are (1) whether Dr. Espy's use of the vacuum extractor breached the applicable standard of care, and (2) whether S.C.'s developmental difficulties were caused by an injury he suffered at birth.

II. BREACH OF THE STANDARD OF CARE

1. *Use of the Vacuum Extractor*

Plaintiff offered the testimony of two experts in obstetrics and gynecology to establish the standard of care in the use and placement of the vacuum extractor: Dr. Michael Berke and Dr. Ronald Zack. Dr. Berke is a board certified obstetrician and gynecologist who practiced for 40 years, but stopped delivering babies in early 2007. Dr. Zack is also a board certified ob/gyn and has shared a practice with Dr. Berke since 1983. He has been practicing for approximately 30 years, although he has only delivered five babies in the last ten years.

Both doctors testified that it was a breach of the standard of care for Dr. Espy to use the vacuum as she did. Dr. Berke opined that Dr. Espy should have extended the incision through the rectus muscles, which would have given her sufficient access to the uterus to deliver the baby without the use of an assist device. Dr. Zack agreed that Dr. Espy should have at least tried expanding the incision by cutting the rectus muscles before using the vacuum.

Defendant offered the expert testimony of Dr. Michael Prysak, an ob/gyn who has been board certified since 1979. He is currently the director of St. John's ob/gyn residency program and an assistant clinical professor with Wayne State University School of Medicine. Dr. Prysak testified that it was not a breach of the standard of care for Dr. Espy to employ a vacuum. He stated that extending the incision as Plaintiff's experts suggested carries its own risks. These include the possibility of significant bleeding and the potential for serious complications in the event of future pregnancy

and labor. Likewise, Dr. Espy testified that she could not have extended the incision without significantly increasing the risk of harm to the mother.

The Court finds that Dr. Prysak offered persuasive testimony that extending the incision carried significant risks over the use of the vacuum, and Plaintiff's experts failed to explain adequately why the risks of extending the incision were less significant than the risks of using the vacuum extractor. Accordingly, Plaintiff has failed to show that Dr. Espy's decision to use the vacuum without further extending the incision was a breach of the standard of care.

2. *Placement of the Vacuum Extractor*

Plaintiff alleges that even if the use of the vacuum was not a breach of the standard of care, Dr. Espy's positioning of the vacuum on the head of the baby was a breach of the standard. S.C. was born with a hematoma on the right side of his head. The hematoma, according to the testimony, was either a cephalohematoma or a subgaleal bleed. Ascertaining which type of hematoma S.C. suffered is important in determining where the vacuum was placed.

The testimony established that a cephalohematoma is a bleeding within the tissue that surrounds the bony plates of the baby's skull. Cephalohematomas frequently resolve on their own and are benign in nature, as they are outside of the skull and do not extend inside the brain. Furthermore, the bleeding in a cephalohematoma is confined within the tissue that surrounds the bony plates of the baby's skull. The occurrence of a cephalohematoma on an infant following the use of a vacuum extractor

is not uncommon even when the vacuum is applied properly. A subgaleal bleed is also outside the skull and under the scalp, but it is not confined.

Both Plaintiff's expert in pediatric neurology, Dr. Ronald Gabriel, and Defendant's expert in pediatric neurology, Dr. Gary Trock, testified that S.C. suffered a cephalohematoma – and not a subgaleal bleed – at birth. Contrarily, Dr. Zack believed that S.C. suffered a subgaleal bleed. The Court accepts the finding of the experts in neurology on this issue and concludes that S.C. suffered from a cephalohematoma at birth.

All of the doctors agreed that a vacuum extractor should be placed on the center of the crown, or "occiput," of the baby's head. Drs. Berke and Zack opined that Dr. Espy breached the standard of care by not placing the vacuum appropriately on the occiput. Dr. Berke maintained that it was impossible for Dr. Espy to properly apply the vacuum, because the baby's head was seated in the back of the uterus and facing up. Dr. Zack, to the contrary, thought the vacuum could properly be used to assist in delivering a baby in this position. However, both determined that the vacuum must have been improperly applied in light of the hematoma and the developmental problems since birth.

Drs. Berke and Zack concluded that Dr. Espy applied the vacuum to the side, instead of the center, of S.C.'s head based on the location of the cephalohematoma. As the hematoma was on the right side of S.C.'s head, they opined that the vacuum must have been placed on the right side. However, the physiological evidence does not support that hypothesis.

As already discussed, a cephalohematoma is a bleed that occurs within the tissue that surrounds the individual bony plates of the baby's skull. These bony plates and the tissue that surrounds them, according to the testimony, do not cross the center of the baby's head where a vacuum is properly applied. Therefore, both Dr. Prysak, Defendant's ob/gyn expert, and Dr. Taref Alabed, S.C.'s treating pediatrician, testified the structures into which a cephalohematoma would bleed do not cross the midline. As such, they would not expect a cephalohematoma on the midline of the crown of the baby's head even if the vacuum was centrally placed. Even Dr. Gabriel, Plaintiff's expert in pediatric neurology, confirmed the tendency for cephalohematomas not to be centrally located when he testified that S.C.'s injury almost certainly was a cephalohematoma due to the fact that it was localized to the right parietal region.

The Court finds the testimony explaining the rarity of centrally located cephalohematomas to be convincing. Thus, the location of S.C.'s cephalohematoma does not establish that Dr. Espy failed to apply the vacuum centrally. In this case, there simply is not an appropriate basis for determining where the vacuum was applied. Accordingly, the Court finds that Plaintiff failed to prove by a preponderance of the evidence that Dr. Espy's placement of the vacuum during S.C.'s delivery breached the standard of care.

III. CAUSE OF S.C.'S CONDITION

Plaintiff also, as will be shown, failed to show that S.C.'s condition was the result of a trauma suffered at birth as opposed to a preexisting genetic condition.

There was conflicting evidence regarding whether S.C.'s condition was apparent at the time of his birth or whether it did not first present until months after the birth. The first indication of the baby's condition is the APGAR score. An APGAR score, according to the testimony, ranges from 0 to 10 and is used to determine whether a newborn needs medical intervention; a score of 10 represents an infant in perfect condition. Immediately after S.C.'s delivery, the hospital records indicate different one-minute scores ranging from 5 to 7. Regardless of the precise APGAR score at one minute, it is clear that S.C. was experiencing some difficulties because he needed blow-by oxygen and suction. S.C. quickly responded to these resuscitation efforts, however, and there is no dispute that by five minutes his APGAR score was a normal 9.

Dr. Alabed, the pediatrician who treated S.C. during his stay in the hospital, stated that babies born via C-section sometimes need extra stimulation. Dr. Trock, Defendant's pediatric neurology expert, agreed that it is not unusual for babies born via C-section to need respiratory stimulation. He explained that the trip down the birth canal in a vaginal delivery improves a neonate's respiration, as the squeezing of the fetus during delivery causes the lungs to constrict, thus removing the secretions that otherwise impair respiration. In contrast, a baby delivered via C-section does not get the benefit of labor, and thus often is born needing some respiratory resuscitation.

Whatever problems S.C. had in the first few minutes of life, the Court finds that they most likely were attributable to the fact that he was born via C-section and were not the result of either a trauma that occurred during delivery or some preexisting condition. The fact that S.C. responded so quickly to resuscitative therapy provides significant support for this conclusion.

Plaintiff argues that analysis of the blood taken from the umbilical cord at the time of delivery demonstrates that S.C. suffered a trauma at birth. The testimony at trial indicated that the laboratory results showed some build-up of acid in the blood such that there was mild or moderate acidemia. All of the experts agreed that S.C.'s acidemia was "mixed," that is, both metabolic and respiratory in nature. The trial testimony showed that cellular injury causes metabolic acidemia, whereas a breathing impairment causes respiratory acidemia. Dr. Gabriel opined that S.C.'s metabolic acidosis was due to the injury of brain cells at birth, but he offered no support for this conclusion. He acknowledged that it also can result from cellular injury anywhere in the body.

Dr. Trock, on the other hand, concluded that the acidemia in the cord blood was almost completely respiratory in nature, and not the result of cellular injury. He pointed out that laboratory tests showed S.C. had a relatively high amount of carbon dioxide in his blood. According to Dr. Trock, this means that S.C. initially had some trouble breathing, causing a build-up of carbon dioxide in his system. He testified that this is consistent with the respiration difficulty that babies delivered via C-section often experience. The Court finds Dr. Trock's explanation of the acidosis persuasive in light of S.C.'s initial breathing difficulties, which was evidenced by S.C.'s one-minute APGAR score. As his normal five-minute APGAR score showed, however, S.C. quickly overcame his initial breathing difficulties.

S.C.'s hospital stay was uneventful. The records indicate that, after some initial difficulty coordinating his suck with his swallow, he fed well, was alert and active, responded to stimulation, and had a symmetrical range of motion. Though Plaintiff's expert witnesses cited other alleged abnormalities at the time of birth, including

meconium on the warming table, the need for a single gavage feeding, acrocyanosis (bluish fingers and toes), tachypnea, mild nasal flaring, and moderate retractions, there was insufficient evidence to link these minor anomalies to serious injury during delivery.

Dr. Alabed began monitoring S.C. immediately following his delivery and, as his pediatrician, saw him every day of his hospital stay. His notes read that the baby was "doing fine . . . no problems . . . alert [and] active." S.C. was discharged from the hospital with his mother three days after delivery on January 25, 2004.

The evidence demonstrated that S.C. presented as a normal baby in the first weeks of his life. At his first "well-baby" visit on January 30, 2004, Dr. Alabed found S.C. to be normal other than the cephalohematoma and some constipation. At the next visit, on February 5, 2004, the cephalohematoma was still present, the constipation had improved, and the examination was otherwise normal. Subsequently, the cephalohematoma resolved on its own, and when Dr. Alabed again saw S.C. on March 23, 2004, it was a normal check-up except for some cold symptoms. Not until S.C.'s April 26, 2004, three-month checkup, did Dr. Alabed observe that S.C. appeared to be "floppy," and that he was not following objects with his eyes. Because of these abnormalities, Dr. Alabed referred the baby to a neurologist.

Dr. Gyula Acsadi, a pediatric neurologist at Children's Hospital of Michigan, first saw S.C. on June 29, 2004. He noted that S.C. did not track with his eyes, that he had markedly decreased strength, and that he had very poor head control. In addition, the doctor generally noted hypotonia or decreased muscle tone. Dr. Acsadi diagnosed "floppy infant syndrome with both central and peripheral origin."

A brain MRI was performed at Children's Hospital of Michigan on August 17, 2004. Dr. Thomas Slovis interpreted the MRI to be primarily normal except for hypoplasia – or thinning – of the corpus callosum. Dr. Acsadi saw S.C. one week later, and he again detected global neurological abnormalities, including absent reflexes, except for the left knee jerk.

At his November 23, 2004 examination, Dr. Acsadi similarly found that S.C. had diminished strength throughout, hypotonia, mostly absent reflexes, and the overall developmental age of a one-month old baby. By the next appointment with Dr. Acsadi, on March 15, 2005, S.C. was showing signs of myoclonic seizures, which are typified by rapid jerking of the body. Along with the abnormalities that he previously reported, the doctor also noted that S.C. had a high-arched palate. At an examination on May 17, 2005, Dr. Acsadi observed the previously noted abnormalities and found that S.C.'s head now was microcephalic or small.

S.C. had some tests for genetic abnormalities, such as Angelman's Syndrome, Rett Syndrome, and Prader-Willi Syndrome. There were no positive findings, and the cause of S.C.'s condition remained unknown. Consequently, Dr. Acsadi discussed with Ms. Woodland the fact that a spinal tap as well as a muscle biopsy would be needed in order to make a definitive diagnosis. He advised her, however, that it was highly unlikely that these tests would reveal a treatable condition. Accordingly, Ms. Woodland decided not to subject S.C. to these invasive procedures. During the litigation of this case, S.C. was tested for nine additional common genetic abnormalities. The testing yielded no positive findings.

Plaintiff offered the expert testimony of Dr. Ronald Gabriel, a highly-educated pediatric neurologist, as to causation. Dr. Gabriel stated that neurodiagnosticians such as himself generally can diagnose the cause of a condition like S.C.'s over 90% of the time. He testified that he reviewed S.C.'s medical records and concluded that the application of the vacuum at birth caused a devastating brain injury. All or most children delivered with the aid of a vacuum extractor will have some degree of bleeding inside of the brain, he opined, even with a normal application of a vacuum extractor, and over fifty percent of children with cephalohematomas have skull fractures. In addition, S.C. had a thinning of the corpus callosum which, according to him, indicates extensive damage to both hemispheres of the brain. In light of S.C.'s cephalohematoma and the developmental problems he experienced, Dr. Gabriel concluded that S.C. must have suffered an intracranial bleed.

Dr. Gabriel was asked about Defendant's position that S.C.'s hypotonia was inconsistent with a brain trauma. He acknowledged that babies with a brain injury typically present with hypertonia, which is characterized by spasticity and rigidity. However, he believed that S.C.'s hypotonia could have been the result of selective damage to the motor strip of the frontal lobe, but he offered no evidence indicating that S.C. suffered from such selective damage.

Dr. Gabriel additionally supported his conclusion that S.C. suffered a traumatic brain injury with the August 2004 MRI. He interpreted the MRI as demonstrating "abnormalities diffusely of both the cortex and subcortex producing atrophy, which is compatible with the decelerating head size and compatible with [S.C.'s] present condition, and that present condition is most likely due to the traumatic event." While

Dr. Gabriel is certified in MRI and CT by the American Society of Neuroimaging, he is not a radiologist. Nor is he authorized to interpret radiological studies at the hospital with which he has an ongoing relationship. As already discussed, this MRI was interpreted by Dr. Slovis, a board certified pediatric radiologist, who found it to be normal apart from the thin corpus callosum.

Dr. Acsadi, contrarily to Dr. Gabriel, testified that S.C. has global developmental delay of unknown cause. He suspects what is known as a pyruvate dehydrogenase (PDH) abnormality based on S.C.'s symptoms, laboratory findings of high levels of alanine and pyruvate, and the thinning of his corpus callosum, which all are consistent with the condition. Dr. Acsadi also noted that children with genetic abnormalities often have trouble swallowing prenatally, which results in an excess of amniotic fluid, i.e. polyhydramnios. Likewise, a high-arched palate is not uncommon with such children, as the proper formation of the roof of the mouth depends on the baby's ability to effectively suck and swallow. As already discussed, polyhydramnios was present during Ms. Woodland's prenatal course, and S.C. was found to have a high-arched palate.

Dr. Acsadi was unable to confirm whether S.C. has a PDH abnormality, however, without the spinal tap and muscle biopsy. He went on to note that in less than half of the cases of nonspecific global developmental delay can a specific cause be identified. He explained that there are thousands of genetic disorders and that S.C. could not be tested for all of them.

Dr. Acsadi concluded that it is highly unlikely that S.C.'s developmental delays are related to a traumatic event at birth. He explained that trauma at birth results in

hypertonia, which is precisely the opposite of what S.C. is experiencing. He also testified that a traumatic brain injury at birth would not result in the global abnormalities that are present in S.C. Instead, had there been such an injury, the part of the brain that was affected would reveal itself in focal abnormalities.

Dr. Acsadi's conclusions were supported by the testimony of Dr. Trock, the defense expert in pediatric neurology, who examined S.C. and agreed with Dr. Acsadi's assessment. Dr. Trock confirmed that children who suffer either hypoxic or traumatic injuries at birth demonstrate hypertonia, not hypotonia. He explained that this was because traumatic and hypoxic birth injuries harm the neural pathways that suppress movement, and the excitable neural pathways therefore become predominant, resulting in hypertonia and spastic movement.

Dr. Trock also stated that when a newborn suffers a life-changing brain trauma, the trauma reveals itself to the examining doctors and nurses almost immediately. A baby with such a traumatic brain injury is invariably comatose or will demonstrate altered consciousness, will not feed normally, and will not appear normal during a newborn examination. Most certainly, according to Dr. Trock, a baby with a severe brain injury will not improve from a one-minute APGAR of between five and seven, to a normal five-minute APGAR of nine. Furthermore, he stated that the minor anomalies that were recorded soon after S.C. was born – difficulty breathing, poor suck-and-swallow coordination, acrocyanosis – do not indicate that S.C. suffered a brain injury during delivery.

Like Dr. Acsadi, Dr. Trock believes that only fifty percent of abnormalities such as S.C.'s can be attributed to a specific cause. He noted that new genetic disorders are

being discovered every month and that it is not possible to test all of the genes and chromosomes. Dr. Trock also testified that S.C.'s small corpus callosum was a non-specific finding that did not indicate a trauma at birth. In addition, Dr. Trock stated that babies with cephalohematomas were "quite common" and usually of no neurological significance. He also had never heard it reported that 50 percent of cephalohematomas involve skull fractures, as Dr. Gabriel claimed.

In addition, Dr. Trock was asked about Dr. Gabriel's contention that S.C.'s hypotonia, which does not typically result from a brain trauma, could have resulted from selective damage to the motor strip of the frontal lobe. Dr. Trock first stated that such an injury would still result in hypertonia, not hypotonia. Furthermore, he noted that if S.C. had only suffered an injury to the motor strip he would be much better off because he would not be profoundly retarded.

The final witness at trial was Dr. Slovis, the radiologist who interpreted S.C.'s August 2004 and May 2006 MRIs. Dr. Slovis explained that had S.C. suffered an intracranial bleed at birth, there would have been evidence of that injury on the August 2004 MRI, and no such evidence was present. This leads the Court to give less weight to the findings of Dr. Gabriel. His causation testimony depends on the existence of an intracranial bleed at birth and, as just discussed, the August 2004 MRI contained no evidence of such a bleed. Dr. Slovis also testified that had there been a traumatic injury at the time of delivery, the MRIs would have demonstrated a focal abnormality, rather than the diffuse abnormalities that were evident in the May 2006 MRI. In fact, Dr. Slovis stated that he had not seen a case where damage from a vacuum extractor caused such global impairments.

The Court found the testimony of Drs. Ascadi, Trock, and Slovis to be particularly convincing. Accordingly, the Court gives their testimony, including their opinions regarding causation, considerable weight. The reasoning and explanations they provided better fit the evidence regarding the course of S.C.'s condition, as compared with Dr. Gabriel's traumatic injury explanation which failed to explain adequately S.C.'s lack of apparent problems until his three-month checkup and his hypotonia. Further, in order to credit the causation testimony of Dr. Gabriel, the Court would have to conclude that Dr. Alabed missed a severe brain trauma both during S.C.'s hospital stay and for three months following his birth. In light of these facts, Dr. Gabriel's testimony simply does not persuade the Court that S.C.'s injuries were the result of a traumatic injury he suffered during his birth.

After reviewing the testimony, the Court concludes that Plaintiff has failed to establish that S.C.'s condition was the result of a trauma, vacuum-related or otherwise, suffered at birth. Thus, Plaintiff failed to prove by a preponderance of the evidence either that Defendant breached the standard of care in connection with the delivery of S.C., or that S.C.'s condition was caused by an injury he may have sustained at birth.

III. CONCLUSIONS OF LAW

The relevant law in this case is not disputed. The Federal Tort Claims Act, 28 U.S.C. § 1346(b)(1), provides in pertinent part that federal courts have jurisdiction over claims for damages against the United States for personal injury or death caused by the "negligent . . . act or omission of any employee of the Government while acting within the scope of his . . . employment, under circumstances where the United States, if a

private person, would be liable to the claimant in accordance with the law of the place where the act or omission occurred." Because the claim arises out of care that was provided at Harper Hutzel Hospital in Detroit, Michigan's substantive law of negligence and medical malpractice apply to this suit.

The Michigan law of medical malpractice requires that the plaintiff show that: (1) the defendant owed the plaintiff a duty to render medical care according to the appropriate standard of care; (2) the defendant breached the standard of care; (3) the plaintiff suffered injury; and (4) the injury was proximately caused by the breach of the standard of care. Cox v. Board of Hosp. Managers for the City of Flint, 651 N.W.2d 356, 361 (Mich. 2002). As with all civil litigation, the plaintiff bears the burden of proving her case by a preponderance of the evidence. As discussed in the Court's findings of fact, Plaintiff has failed to carry her burden of proving by a preponderance of the evidence either that Dr. Espy breached the standard of care or that S.C.'s condition was caused by that alleged breach of the standard of care.

What was clear at trial, however, was the excellent care that S.C.'s parents have provided despite the significant struggles they face. If sympathy alone were the deciding factor, the Court would grant judgment in Plaintiff's favor in a heartbeat. However, the Court is obligated to consider and weigh the evidence, and the evidence in this case simply did not preponderate that S.C.'s condition was caused by negligence on the part of Dr. Espy. Accordingly, the Court cannot hold Dr. Espy responsible for S.C.'s condition. Therefore, as Plaintiff has failed to establish liability by a preponderance of the evidence, judgment shall enter for Defendant.

IT IS SO ORDERED.

s/Marianne O. Battani
MARIANNE O. BATTANI
UNITED STATES DISTRICT JUDGE

DATED: January 28, 2010

CERTIFICATE OF SERVICE

Copies of this Order were served upon counsel of record on this date by ordinary mail and/or electronic filing.

s/Bernadette M. Thebolt
Case Manager